

REPORT  
NO. 90-073

May 23, 1990

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (FINANCIAL  
MANAGEMENT)

SUBJECT: Report on the Audit of the Procurement of the  
Combined Arms Training-Integrated Evaluation  
System (Project No. 9CC-8004)

Introduction

This is our final report on the Audit of the Procurement of the Combined Arms Training-Integrated Evaluation System (CATIES). We made the audit from January through September 1989 in response to a Hotline complaint alleging irregularities in the procurement of CATIES. The audit objectives were to determine whether the procedures used to acquire CATIES were in accordance with the Federal Acquisition Regulation and to evaluate whether internal controls were in place for this procurement.

Prior Audit Coverage

No previous audit has been performed on the specific issue of the procurement of CATIES within the past 5 years. During our audit, we issued Report No. 89-091, "Quick-Reaction Report on the Procurement of the Combined Arms Training-Integrated Evaluation System," dated July 11, 1989. We recommended that the Secretary of the Army terminate the contract for CATIES. In the report, we concluded that the CATIES did not adequately meet the Army mission requirements and that CATIES was not cost-effective because it duplicated similar functions of the Army-wide system. We also concluded that the Army did not comply with the Competition in Contracting Act and the Federal Acquisition Regulation because of restricting competition to a specific contractor. The Army disagreed with our conclusions and recommendation. During the audit resolution process, we agreed that the Army would not terminate the basic contract for CATIES. The Army agreed that it would exercise the contract option for 3,500 player detection devices only if significant delays are experienced in operating the SAWE-RF (GPS), the Army-wide system. Also, the Army agreed that if it determined that the exercise of the contract option was necessary, a cost/benefit

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analysis would be performed. The Army would analyze the cost-effectiveness of procuring appropriate technical data and technical data rights and include results of the analysis in its deliberations. In addition, the Army agreed that if its deliberations concluded that the option should be exercised, it would notify the Under Secretary of Defense for Acquisition and the Inspector General, DoD, no less than 30 days before exercising the option.

### Discussion

After resolution of our quick-reaction report, no further audit work was required, specifically on procurement procedures. However, we continued our evaluation of whether adequate internal controls were in place for this procurement. We reviewed the management controls for planning, authorizing, and approving the procurement of CATIES. We concluded that internal controls were adequate for procuring CATIES. However, our review disclosed that these controls may have been circumvented. We provided information on potential acts of misconduct to the Assistant Inspector General for Special Programs, Office of the Inspector General, DoD.

### Scope of Audit

We reviewed records dated from 1976 to 1989. We reviewed contract files, contract documents, program files, technical specifications, and documents outlining acquisition strategies pertaining to CATIES and the Army-wide system, the Simulated Area Weapons Effects-Radio Frequency (SAWE-RF) (Global Positioning System [GPS]). Industrial and electrical engineers from our Technical Support Division assisted us in evaluating the technical aspects of CATIES and the SAWE-RF (GPS). In addition, a procurement analyst from the Technical Support Division assisted us in our review of procurement procedures. The activities and contractors visited or contacted during the audit are listed in Enclosure 1. This compliance and economy and efficiency audit was made in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD, and accordingly included such tests of internal controls as were considered necessary.

### Internal Controls

We evaluated whether adequate internal controls were in place for the procurement of CATIES. We reviewed the procedures, methods, and documents used by the Army to plan, authorize, approve, and procure CATIES. We found no material weaknesses in internal controls for planning, authorizing, and procuring CATIES.

## Background

Since the late 1970's, the Army has funded various studies and research and development projects on simulated area weapons effects (SAWE). CATIES is a recent project the Army has undertaken to satisfy its requirement for SAWE. CATIES is designed to simulate the effects of indirect fire, such as artillery fire; minefields; and nuclear, biological, and chemical contaminants. The CATIES is also designed to provide real-time and realistic casualty and damage assessments and artillery evaluation capability.

On January 23, 1989, the U.S. Army Training and Doctrine Command awarded a noncompetitive letter contract, DABT60-89-C-1445, to Motorola Corporation for the CATIES. The contract was awarded at a ceiling price of \$14.5 million for one mission control station, 600 vehicle detection devices, and 16 prototype player detection devices with an unpriced contract option valued at \$20 million for 3,500 player detection devices. (CATIES' major components are discussed below.) The letter contract was awarded based on urgency and required delivery of a system that simulated area weapons effects at the Army National Training Center, Fort Irwin, California.

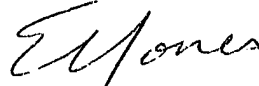
The major components of the CATIES include one mission control station, multiple relay station transmitters, vehicle detection and player detection devices, chemical alarm indicators, a system of audiovisual devices, and the software necessary to interface with existing systems. During combat training, CATIES radio receivers (vehicle detection devices) are mounted on each vehicle. Individuals in combat training also wear a receiver (the player detection device), which connects to their gas mask. Receivers activated during the tactical exercise are considered to be casualties and are removed from the exercise. The audiovisual device system simulates actual combat by adding flash, bang, and smoke to the training exercises.

In July 1989, a contract was awarded to Loral Corporation for the procurement of the SAWE-RF (GPS), a system to meet Army-wide requirements for SAWE. A primary difference between this system and CATIES is that the SAWE-RF (GPS) will use satellite technology to provide location information on player positions while CATIES will use land-based antennas.

## Report Staffing

We provided a draft of this report to the addressee on January 22, 1990. Because there were no recommendations, no comments were required of management, and none were received.

We appreciate the courtesies and cooperation extended to the audit staff. The names and titles of the audit team members are shown in Enclosure 2. The distribution of this report is shown in Enclosure 3. If you have any questions concerning this report, please contact Mr. Richard Jolliffe on (202) 694-6260 (AUTOVON 224-6260).



Edward R. Jones  
Deputy Assistant Inspector General  
for Auditing

Enclosures

cc:  
Secretary of the Army

ACTIVITIES AND CONTRACTORS VISITED OR CONTACTED

Department of the Army

Assistant Secretary of the Army (Research, Development and Acquisition), Washington, DC  
Deputy Chief of Staff for Operations and Plans, Washington, DC  
Training and Doctrine Command, Fort Monroe, VA  
Field Artillery Center, Fort Sill, OK  
National Training Center, Fort Irwin, CA  
Training and Doctrine Command Contracting Activity  
Fort Eustis, VA  
Project Manager for Training Devices, Army Materiel Command, Orlando, FL

Contractor Locations

LB&M Associates, Lawton, OK  
Loral Corporation, Pasadena, CA  
Motorola Corporation, Tempe, AZ  
Science Applications International Corporation, San Diego, CA

AUDIT TEAM MEMBERS

James J. McEale, Acting Director, Contract Management Directorate  
Mary Lu, Project Manager  
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David Leising, Contract Specialist

ENCLOSURE 2

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and Acquisition)  
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Army Inspector General  
Commander, Army Materiel Command  
Project Manager for Training Devices  
Commander, U.S. Army Training and Doctrine Command  
Commander, U.S. Army Training and Doctrine Command  
Contracting Activity

Office of Management and Budget  
U.S. General Accounting Office, NSIAD Technical Information  
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Congressional Committees

Senate Committee on Appropriations  
Senate Subcommittee on Defense, Committee on Appropriations  
Senate Committee on Armed Services  
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Committee on Government Operations

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**B. DATE Report Downloaded From the Internet: 02/20/01**

**C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #):** OAIG-AUD (ATTN: AFTS Audit Suggestions)  
Inspector General, Department of Defense  
400 Army Navy Drive (Room 801)  
Arlington, VA 22202-2884

**D. Currently Applicable Classification Level: Unclassified**

**E. Distribution Statement A: Approved for Public Release**

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